

TROPICAL DEPRESSION (09W)

Tropical Depression 09W was unusual in that it developed in an area where tropical cyclogenesis is a rare event. It was first detected as a tropical disturbance located 60 nm (111 km) south of Okinawa on the 25th of August. At this time, the monsoon trough was displaced far to the north of its climatological position following the passage of Tropical Storm Dom. Tropical Depression 09W formed to the west of Dom in an area of highly convergent low-level flow.

Tropical Depression 09W was first mentioned in the Significant Tropical Weather Advisory (ABEH PGTW) at 0600Z on the 25th. Upper-level flow in the vicinity of the circulation was highly divergent and Dvorak intensity estimates indicated that maximum sustained winds associated with the circulation were 30 kt (15 m/s). Tropical Depression 09W showed no signs of further development in the next 24 hours of its existence. However, a TCFA was issued at 260400Z because the favorable upper-level conditions indicated a good potential for intensification of the circulation.

Soon after the TCFA was issued, satellite imagery (Figure 3-09-1) revealed an exposed low-level circulation with associated convective activity displaced 300 nm (555 km)

to the south. Synoptic data at the time indicated that the central pressure of the depression was below 1000 mb but the area of maximum winds was 100 nm (185 km) from the center. At this point, it was expected that the circulation would become better organized and pose a threat to nearby population centers in Japan and Korea. Accordingly, the first warning on Tropical Depression 09W was issued at 2612002.

The only aircraft reconnaissance mission flown on this system was conducted at 2330Z on the 26th. Terrain in the area precluded a low-level flight and severely restricted the collection of peripheral data. However, the height of the 700 mb center supported a maximum surface wind speed of 30 kt (15 m/s). This intensity was in perfect agreement with simultaneous estimates using satellite imagery.

Tropical Depression 09W never developed into a tropical storm and dissipated rapidly after making landfall on the southern coast of Korea. Although the East China Sea was dominated by cloudiness and rain showers during its passage, there were no reports of injury or property damage related to this depression.

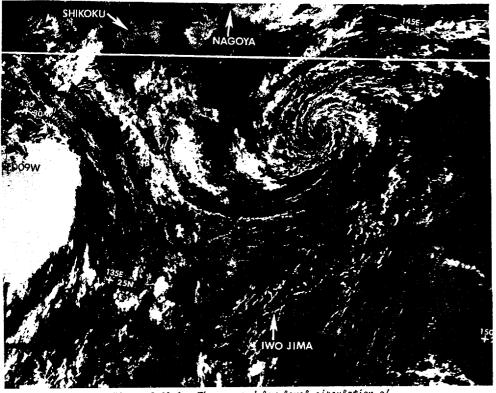


Figure 3-09-1. The exposed low-level circulation of TD 09W (left) and Tropical Storm Dom (right) in its dissipation stage (260546Z August NOAA 7 visual imagery).